

BAIEKUR COILS Ltd.



PRE WELD HEATING COILS

USER MANUAL

110/120 Volt - MODELS 400/1200
220/230 Volt - MODELS 400/1200E

Feb. 15, 2014



CERTIFICATE & DECLARATION OF CONFORMITY FOR CE MARKING

Company contact details:

Baiekur Coils Ltd.

Box 264 5312 52nd A Street Wabamun Alberta Canada T0E 2K0

Email: info@baiekurcoils.com

Baieker Coils Ltd. declares that their:

Electrical Resistance Heaters

listed as the following models

400, 600, 800, 1000, 1200,

400E, 600E, 800E, 1000E, 1200E

comply with the Essential Requirements of the following EU Directives:

Low Voltage Directive 2006/95/EC

Electromagnetic Compatibility Directive 2004/108/EC

and further conform with the following EU Harmonized Standards:

EN 60519-10:2005

EN 61000-6-2:2005

EN 61000-6-4:2007+A1:2011

Dated: 05 April 2013

Position of signatory: Director

Name of Signatory: Colin Regan

Signed below:

on behalf of Baiekur Coils Ltd.

Original instructions.

The A weighted emission sound pressure level at work station does not exceed 70 dB(A).

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1. Introduction

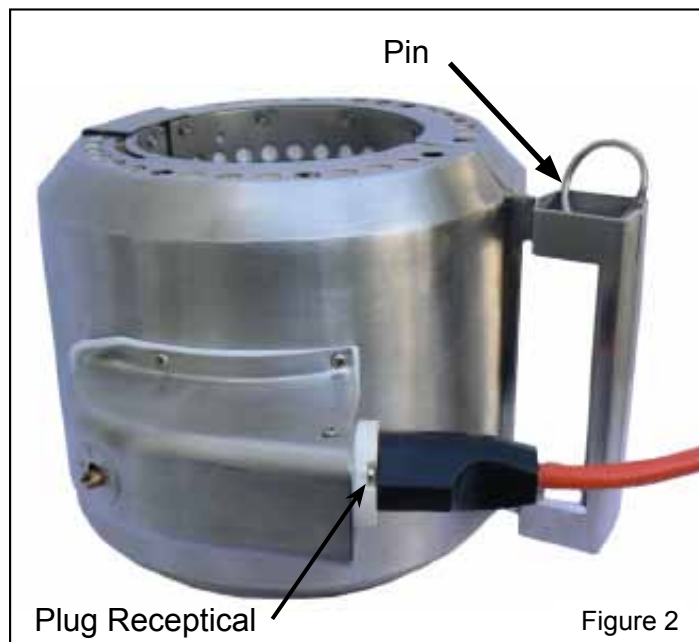
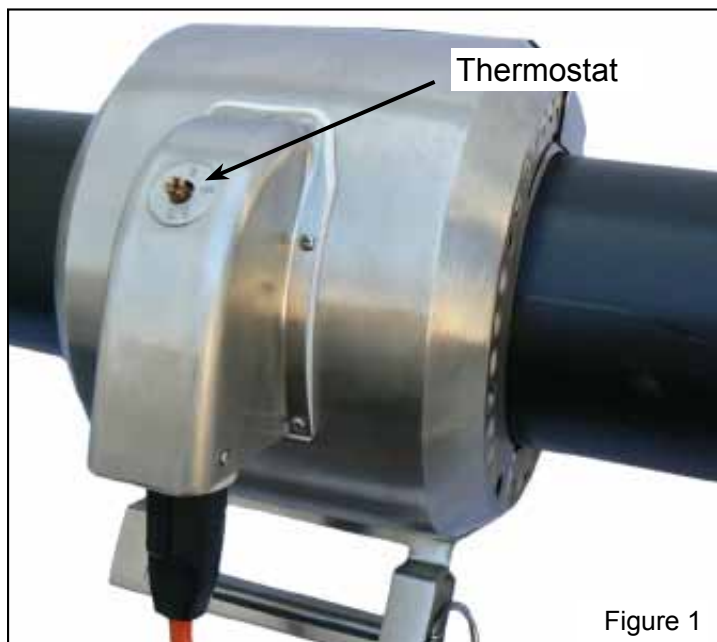
Thank you for your purchase of a **Baiekur Coils®** Heater. We know you will find the **Baiekur Coils®** Heater a valuable addition to your tool kit and you will benefit from the efficiency, safety and enviromental advantages that are to be found over traditional pipe pre-heating methods.

The coil heater is designed to preheat new piping to specified temperature prior to the welding sequence (this is usually specified by the owner/welding procedure/ or the boilers branch, or any other authority that has jurisdiction). Also all insitu piping in a H₂S service requires a hydrocarbon bake out prior to cutting or welding (specified by authority in place). The heater coil in this case expels the H₂S molecules at 600°F (315°C) so that cutting and or welding can commence without fractures to the parent metal.

Baiekur Coils® offer SAFTY ADVANTAGES over traditional pre-heat techniques.

Baiekur Coils® can be installed quickly and easily. The coil provides even heat throughout the weld joint and provides better weld platform as heat is localized.

Baiekur Coils® offers different models and may not be exactly as shown in Figures 1 and 2 below.



1. Introduction (con't.)

Getting Quality Service:

Baiekur Coils provide a process for dealing with your questions or problems to ensure that product quality continues with your **Baiekur Coils®** dealer support.

Follow these steps to get responses to questions regarding your product:

1. Refer to **Baiekur Coils®** User Guide
2. Contact your **Baiekur Coils®** dealer with unanswered questions
3. Contact the **Baiekur Coils®** customer service department at 1 866 942 6457

Baiekur Coils Ltd.

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Web: www.baiekurcoils.com

2. Limited Warranty

Baiekur Coils® warrants to the original purchaser that each new **Baiekur Coils®** is free from defects in material and workmanship and agrees to repair or replace, under this warranty, any defective heater coil for 90 days from the original date of purchase as the exclusive remedy. The essential purpose of this warranty is to provide the purchaser with a properly functioning coil. Any action for breach of any terms of this product shall be commenced within one year from the date of breach. This warranty is not transferable.

SECURING WARRANTY

To secure warranty service the purchaser must (1) report the Equipment defect to an authorized dealer and request warranty service within the applicable 90 *Day Warranty Period* (2) present evidence of the warranty start date with valid proof of purchase and (3) make heater coil available to authorized dealer to repair or replace for a reasonable amount of time.

DISCLAIMER OF ALL IMPLIED WARRANTIES

Baiekur Coils® makes no implied warranties or statutory condition or warranties of merchantability or fitness for particular purpose whether pursuant to the Sale Goods Act, the Uniform Commercial Code, the commercial code of any Province, state or territory, or any other statute of any Province, state or territory.

No Representation or Condition.

To the extent permitted by law, **Baiekur Coils®** nor any company affiliated with it makes any warranty, representation, condition, or promise, expressed or implied, verbal or otherwise, as to the quality, performance or freedom from defect of the coil.

No Warranty Of Title

Baiekur Coils® does not warrant that the purchaser has any right to convey the title of purchased coils.

EXCLUSION OF REMEDIES

In no event will an authorized dealer, **Baiekur Coils®**, or any company affiliated with **Baiekur Coils®**, be liable for any consequential damages or injuries, including but not limited to, loss of profits, rental or substitute equipment, other commercial or personal loss, personal injuries or property damages arising from a result of a fundamental breach, breach of a fundamental term, or any use, any handling, or any maintenance of the **Baiekur Coils®**.

No Dealer Or Agent Warranty

The seller has no authority to make any representation or promise on behalf of Baiekur Coils® or to modify the terms of limitations of this warranty in any way.

3. Quick References



IMPORTANT

This symbol alerts you to potential hazards that can kill or injure either you or others.



DANGER

Indicates a danger concerning operations that if not performed properly will lead to death or injury to persons. In order to use the equipment safely always pay attention to these dangers.



WARNING

Indicates a warning concerning operations that if not performed correctly could lead to death or injury to persons. In order to use the equipment safely always pay attention to these warnings.





CAUTION

Indicates a caution concerning operations that if not performed correctly could lead to moderate to minor injuries or property damage. In order to use the equipment safely always pay attention to these cautions.

4. Important Safety Rules



1.

	IMPORTANT
	Read ALL instructions in the user's manual before using the heater coil.


2. Unit will become hot on the outside (150° F/66° C) when in use. Always wear proper PPE when handling heater coil.

	CAUTION
	HOT SURFACE Contact with skin may cause burns. DO NOT TOUCH Burn Hazard


3. Do not operate in gaseous or hazardous conditions.

	DANGER
	The coil is not electrically explosion proof. In gaseous or hazardous environments, use of electrical equipment could result in fire or explosion. Fire Hazard



4.

	CAUTION
Do NOT use the coil as a heating element for anything other than the perscribed purpose.	


5.

	CAUTION
Do NOT immerse in water or any other liquid or operate in wet conditions.	

6. Do not operate in gaseous or hazardous conditions.

	CAUTION
	Do NOT plug coil in when in wet conditions. Shock Risk

7.



CAUTION

The coil plug must be connected to a properly grounded power cord. Ensure that the power cord is in good condition. When using a power cord ensure it is heavy enough to carry the current the coil will draw. An under-sized cord will cause a drop in the line voltage.

A minimum 12 gauge or equivalent “industrial” power cord with hard plastic connectors is recommended.

To avoid damage or coil failure the welder must not arc the electrode on the coil.

An improper or poorly grounded ground cable connection that is further from the heater than the length of the power supply cord to the coil will cause the welder to ground through the heater coil.

This will cause the coils internal ground wiring to burn out and result in a non warrantable failure of the heating coil.


POWER CORD RECOMMENDATIONS

	110 Volt	220 Volt
Type Of Power Cord	Industrial*	Industrial*
Type Of Cord Plug	NEMA 5-15	CEE 7/7 EUI-16P
Type Of Cord Plugs Material	Hard Plastic	Hard Plastic
Minimum Wire Gauge (AWG)	12 Ga.	12 Ga.
Maximum Cord Length	100 ft. (30 M)	100 ft. (30 M)
Coil Voltage	110/120	220/230
Hertz	50/60	50/60
Watts	1500	1500
Max. Coil Amp.	15	6.5

* Residential cords with soft rubber plugs can overheat and fuse to the coils.


Fig. 3

8.



CAUTION

Always disconnect from power source before removing coil or setting it in a new location. Also, disconnect from the power source prior to cleaning.



CAUTION

To prevent coil damage be sure ground cable is properly grounded and closer to coil than length of coil power cord. Do not arc welding electrode on coil housing.

9.



IMPORTANT

Coils are controlled by thermostat only. There is no ON/OFF switch.

10.



IMPORTANT

When transporting or storing keep unit dry and safe from damage.

11.



CAUTION

Make sure the power cord does not touch the heater other than at the plug. Secure power cord to something other than the coil or pipe to prevent burning of the cord. Make sure the cord does not present a tripping hazard.

12.



CAUTION

Make sure unit is secured properly on pipe prior to releasing it. Use care in handling heater coil at elevation that you don't drop unit on someone or on equipment. Do not drop, hit or abuse the coil. Do not operate coil if it is damaged or malfunctioning. This includes, but is not limited to damage or dents to the outer cover or inner diameter surface of the ceramics. Report any damage to your safety representative and/or supervisor for immediate removal from service. Return the coil to an authorized dealer for inspection prior to reusing.

13.



WARNING



Shock
Risk

Damage to internal diameter ceramics may expose bare wire and cause an electrical short.

14.





WARNING

Replace all safety decals that are not in place and/or damaged. Contact your authorized dealer for replacement decals.



5. Operation

Start Up



1.

	IMPORTANT
	Read ALL instructions in the user's manual before using the heater coil.

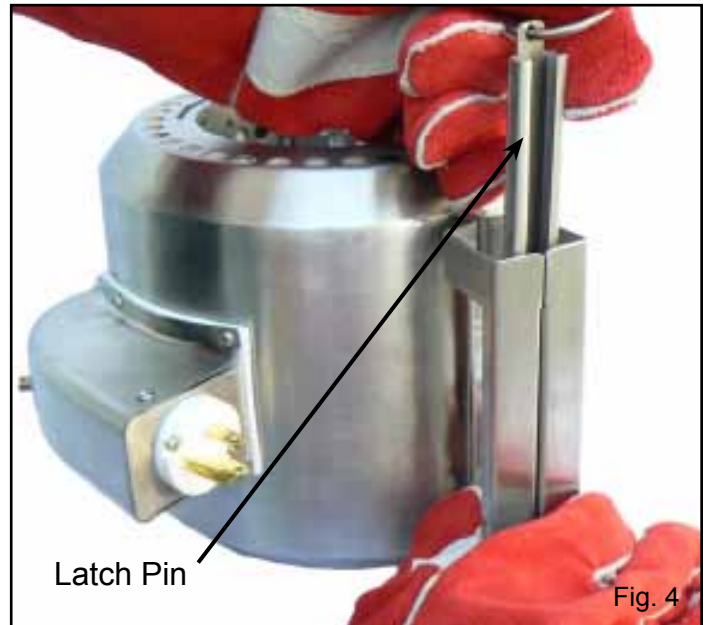
2. Inspect heater coil for damage before using.

	WARNING
	Damage to internal diameter ceramics may expose bare wire and cause an electrical short.
Shock Risk	

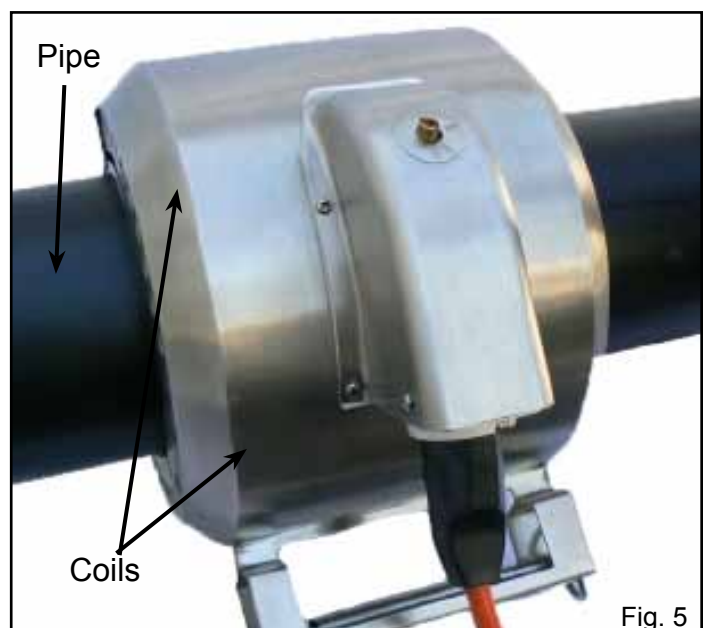
3. Inspect area for combustibles, gaseous or hazardous materials, and ensure the work area is dry.

	DANGER
	The coil is not electrically explosion proof. In gaseous or hazardous environments, use of electrical equipment could result in fire or explosion.
Fire Hazard	

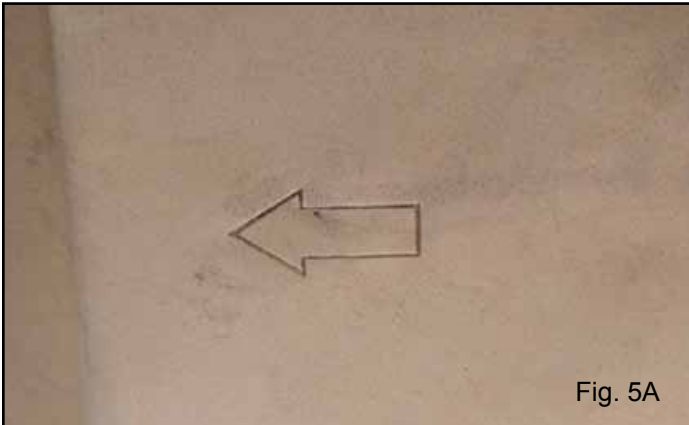
4. Open coil by pulling the latch pin. (see figure 4).




5. Fit coil over pipe. Place units as shown in fig. 5 with plugs at the 3 o'clock position. (NOTE: use proper heater coil for pipe diameter being worked on).



- 5A. For models 800,1000,and 1200 orientate coil so arrow located on outer shell by handle points towards joint to be heated.

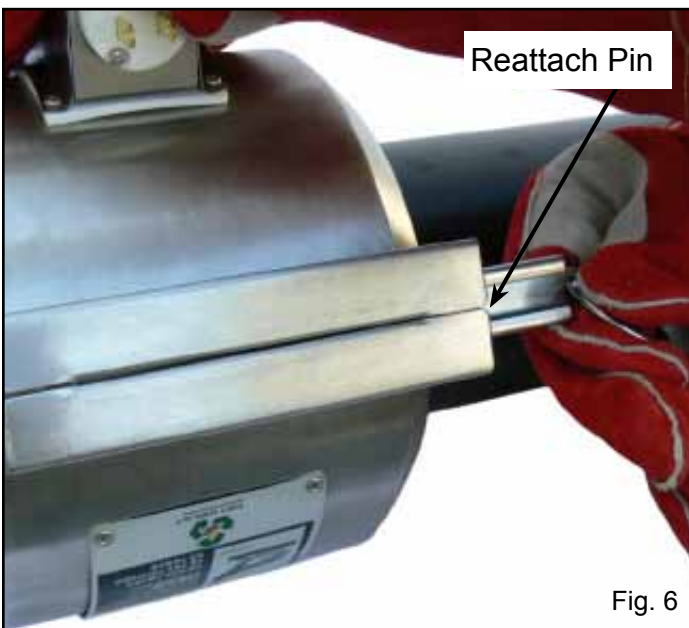


6. Secure unit in place by reattaching pin in latch.



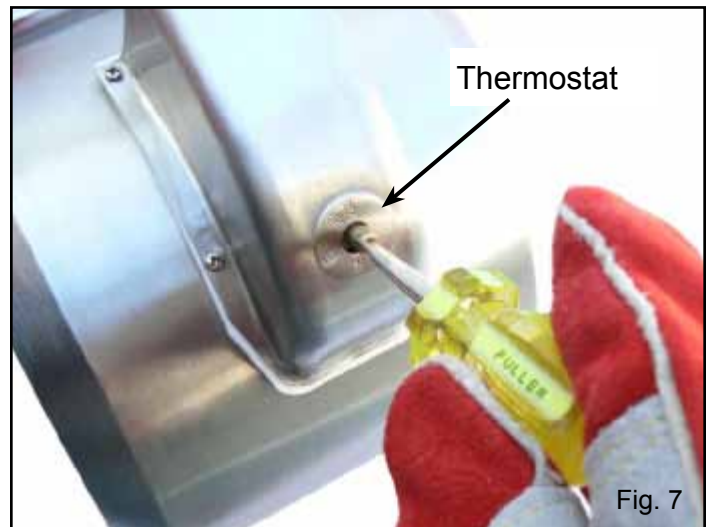
CAUTION

DO **NOT** leave units at elevation until latched, due to potential of heater being jarred and falling on someone or equipment. (fig. 6)




Efficiency Note: Installing coils on several joints at one time will reduce waiting time and maximize number of joints welded per day.


7. Set thermostat setting prior to plugging in coils. Dial on thermostat is for guidance only as desired temperature setting will vary with ambient temperature. Adjust temperature by using a standard insulated screw driver. Turn clockwise to increase temperature, turn counter clockwise to reduce temperature. (see fig. 7).



8. Install all monitoring devices such as data loggers, chart recorders, or any other devices that may be required before plugging in power source.
- 9.



CAUTION



Shock Risk

Use care when installing power cord. Always install coil end connection first ensuring it is in the appropriate condition, the right size (see figure 3), does not present a tripping hazard nor does it touch the pipe being welded, and is not in contact with the heater coil other than at the plug.

10. **110 Volt** When conditions are met and your safety representative has reviewed all safety requirements, plug in the power cord to a properly grounded power source 110 volts, 15 amp service (see fig. 3 for proper cord sizing).

230 Volt When conditions are met and your safety representative has reviewed all safety requirements, plug in the power cord to a properly grounded power source 220/230 volts, 6.5 amp service (see fig. 3 for proper cord sizing).



The heater is instantly on when plugged into a power source, as there is no On/Off switch.
Maximum internal temperature is 600°F/315°C.

11. After 15 minutes check the pipe temperature with temperature sticks or other devices mentioned in section 8. Adjust thermostat up (clockwise) or down (counter clockwise) to achieve desired temperature using an insulated standard flat screw driver.



To prevent coil damage be sure ground cable is properly grounded and closer to coil than length of coil power cord. Do not arc welding electrode on coil housing.

12. After desired temperature is achieved and has been approved by Quality Assurance, you can begin to weld. The coil can easily be slid to give you the required access room for welding.

Note - use anti splatter spray or paste on outside shell of coil to avoid splatter sticking to stainless.

When Required Work Is Complete

1. Unplug power cord from power source.
2. Allow a cool off period until it is safe to remove the coil.



Burn
Hazard

Use proper PPE when handling the coil.

3. Remove pin from the latch and open the heater coil (fig.8)

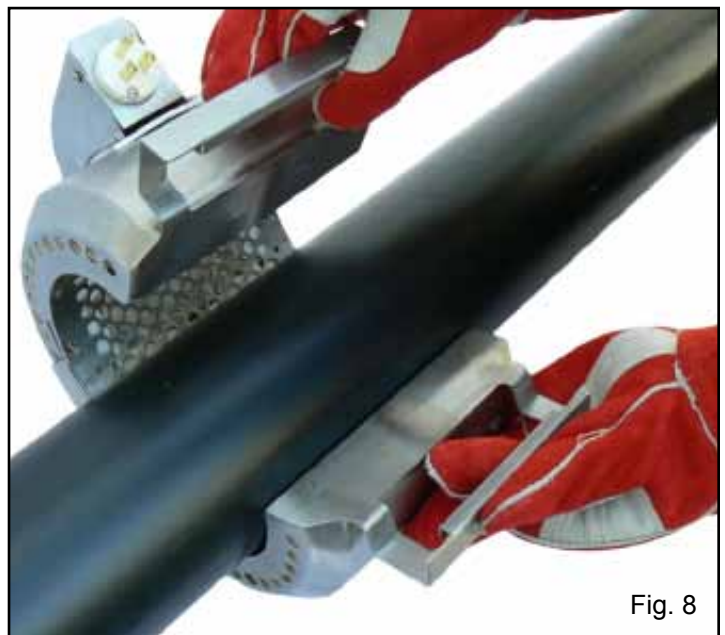


Fig. 8

4. Remove unit from pipe.
5. Carefully relocate heater coil to next desired weld location and repeat the start up procedure.
6. When finished with the unit store in a dry protected location.

6. Servicing

Clean outside casing with dry cloth.



Note - use anti splatter spray or paste on outside shell of coil to avoid splatter sticking to stainless

Clean inside surface with dry cloth.

Inspect for any damage before and after each use. Report any damage to your safety representative or supervisor for immediate removal from service. Coils should be returned to an authorized servicing dealer

7. Replacement Parts

Latch pins and decals are available from an authorized Dealer.

	WARNING
 Shock Risk	Damage to internal diameter ceramics may expose bare wire and cause an electrical short.

8. Specifications

110/120 Volt Coils

Std. Pipe Dia.	4	6	8	10	12
Model No.	400	600	800	1000	1200
Voltage (1)	110 / 120	110 / 120	110 / 120	110 / 120	110 / 120
Hertz	50/60 Cycle	50/60 Cycle	50/60 Cycle	50/60 Cycle	50/60 Cycle
Watts	1500	1500	1500	1500	1500
Amp.	15	15	15	15	15
Plug Type	NEMA 5-15	NEMA 5-15	NEMA 5-15	NEMA 5-15	NEMA 5-15
Max. Inside Temp.	600°F (315°C)	600°F (315°C)	600°F (315°C)	600°F (315°C)	600°F (315°C)
Time to Max. Temp (1)	20 min.	20 min.	20 min.	20 min.	20 min.
Adjustable Thermostat	Standard	Standard	Standard	Standard	Standard
Thermostat Accuracy	+/- 2.5 F°	+/- 2.5 F°	+/- 2.5 F°	+/- 2.5 F°	+/- 2.5 F°
Coil Wall Thickness	1.75"(45 mm)	1.75"(45 mm)	1.75"(45 mm)	1.75"(45 mm)	1.75"(45 mm)
Outside Dia.	7.5"(191 mm)	9.5"(241 mm)	11.5"(292 mm)	13.5"(343 mm)	15.5"(394mm)
Width	6" (150 mm)	6" (150 mm)	6" (150 mm)	6" (150 mm)	6" (150 mm)
Weight	6lbs (2.7 kg)	6.5lbs (2.9 kg)	7lbs (3.2 kg)	7.5lbs (3.4 kg)	8lbs (3.6 kg)

220/230 Volt Coils

Std. Pipe Dia.	4	6	8	10	12
Model No.	400E	600E	800E	1000E	1200E
Voltage (1)	220/230	220/230	220/230	220/230	220/230
Hertz	50/60 Cycle	50/60 Cycle	50/60 Cycle	50/60 Cycle	50/60 Cycle
Watts	1500	1500	1500	1500	1500
Amp.	6.5	6.5	6.5	6.5	6.5
Plug Type	CEE 7/7 EUI-16P	CEE 7/7 EUI-16P	CEE 7/7 EUI-16P	CEE 7/7 EUI-16P	CEE 7/7 EUI-16P
Max. Inside Temp.	600°F (315°C)	600°F (315°C)	600°F (315°C)	600°F (315°C)	600°F (315°C)
Time to Max. Temp (1)	20 min.	20 min.	20 min.	20 min.	20 min.
Adjustable Thermostat	Standard	Standard	Standard	Standard	Standard
Thermostat Accuracy	+/- 2.5 F°	+/- 2.5 F°	+/- 2.5 F°	+/- 2.5 F°	+/- 2.5 F°
Coil Wall Thickness	1.75"(45 mm)	1.75"(45 mm)	1.75"(45 mm)	1.75"(45 mm)	1.75"(45 mm)
Outside Dia.	7.5"(191 mm)	9.5"(241 mm)	11.5"(292 mm)	13.5"(343 mm)	15.5"(394mm)
Width	6" (150 mm)	6" (150 mm)	6" (150 mm)	6" (150 mm)	6" (150 mm)
Weight	6lbs (2.7 kg)	6.5lbs (2.9 kg)	7lbs (3.2 kg)	7.5lbs (3.4 kg)	8lbs (3.6 kg)

(1) Based on schedule 40 pipe at an ambient temperature of 70°F (21°C)